TECHNICAL REVIEW DOCUMENT
For
MODIFICATION TO OPERATING PERMIT 95OPMF040

Questar Gas Management Company – East Hiawatha Compressor Station
Moffat County
Source ID 0810076

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Revised September 21, 2006

I. Purpose:

This document establishes the decisions made regarding the requested modifications to the Operating Permit for the East Hiawatha Compressor Station. This document provides information describing the type of modification and the changes made to the permit as requested by the source and the changes made due to the Division's analysis. This document is designed for reference during review of the proposed permit by EPA and for future reference by the Division to aid in any additional permit modifications at this facility. The conclusions made in this report are based on the information provided in the request for modification submitted to the Division on March 7, 2006, a request to process the modification as a minor modification submitted on August 24, 2006 and an additional information submittal on September 20, 2006, various e-mail correspondence and telephone conversations with the source. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

II. Description of Permit Modification Request/Modification Type

The renewal operating permit for the East Hiawatha Compressor Station was issued on August 1, 2004. During a routine inspection for the Hiawatha Deep facility, the inspector noted that the Hiawatha Deep compressor engine was co-located with the East Hiawatha facility. The Hiawatha Deep facility had previously been permitted as a separate source on the presumption that the equipment would be located approximately ¼ mile from the East Hiawatha facility and that the facilities were interdependent. After further review, the Division determined that the two facilities should be considered a

single source for purposes of Title V and PSD review requirements and requested that an application be submitted to either include the Hiawatha Deep equipment in the East Hiawatha Title V permit or obtain a separate Title V permit for the Hiawatha Deep equipment (see attached). The source submitted an application to include the Hiawatha Deep equipment on March 7, 2006.

Colorado Regulation No. 3, Part C, Section X.A identifies those modifications that can be processed under the minor permit modification procedures. Specifically, minor permit modifications "are not otherwise required by the Division to be processed as a significant modification" (Colorado Regulation No. 3, Part C, Section X.A.6). The Division requires that "any change that causes a significant increase in emissions" be processed as a significant modification (Colorado Regulation No. 3, Part C, Section I.B.36.h.(i)). Since permitted emissions from the Hiawatha Deep engine and dehydrator are less than the PSD significance levels, the Division suggested that Questar could process the addition of the Hiawatha Deep equipment as a minor modification to the Operating Permit. Questar submitted an application on August 24, 2006 requesting that the modification be processed as a minor modification.

Requested emissions for the Hiawatha Deep Equipment are as follows:

	Uncontrolled Emissions (tons/yr)			Controlled/Permitted Emissions (tons/yr)		
	NO_X	CO	VOC	NO_X	CO	VOC
EN001 - Waukesha L7042G Engine[1]	106.5	73.7	2.5	8.2	8.2	4.1
Dehy 02 -PEC Dehydrator			10.02			0.5
Total	106.5	73.7	12.52	8.2	8.2	4.6

[1]uncontrolled emissions from the engine are from the Division's preliminary analysis for the construction permit (issued on March 4, 2005).

With the addition of the Hiawatha Deep equipment, facility wide emissions are as follows:

Emission Unit	Potential to Emit (tons/yr)			
	NO_X	CO	VOC	HAPS
S101 – Engine	102	89.2	0.64	See Table on Page 14
S103 – Engine	39.4	34.5	0.25	
S301/302 – Engine (Generator)	12.4	10.1	0.08	
P501 – Dehydrator			49.8	
Condensate Tanks			11.7	
P104 Engine	7.4	4.4	4.4	
EN-001 - Hiawatha Deep Engine	8.2	8.2	4.1	
Dehy 02 – Hiawatha Deep Dehy			0.5	
Total	169.4	146.4	71.47	19.6

The potential to emit of the highest single HAP (toluene) is 6.98 tons/yr. Potential HAP emissions from the engines are based on the most conservative emission factors from either AP-42 or HAPCalc 2.0 for each pollutant, design rate and 8760 hrs/yr of operation. Note that HAP calculations do not take credit for the control device on engine EN001. Potential HAP emissions from the East Hiawatha dehydrator are based on the APEN submitted on April 24, 2002, source indicates these emissions represent potential to emit. Potential HAP emissions from the condensate tanks are based on the APEN submitted on April 29, 2003. HAP emissions from the Hiawatha Deep dehydrator are based on the GLYCalc run used to set the permit limits and includes 95% control from the condenser/combustor. A more detailed summary of HAP emissions is included on page 14 of this document.

III. Modeling

The increase in NO_X and CO emissions are well below the modeling threshold in the Division's modeling guidance (40 tpy of NO_X and 100 tpy of CO) with this modification, therefore, no modeling is required for NO_X and CO. Although there is a 4.4 tons/yr increase in VOC emissions, modeling is not conducted for VOC emissions.

IV. Discussion of Modifications Made

Source Requested Modifications

The Division addressed the source's requested modifications as follows:

Hiawatha Deep Engine

Unit EN001, Waukesha, Model No. L7042G, Serial No. 276908, 4-Cycle Rich Burn, Natural Gas –Fired Internal Combustion Engine, Equipped with Non-Selective Catalytic Reduction (NSCR). This engine is rated at 849 hp and 7.4 mmBtu/hr.

Applicable Requirements – Colorado Construction permit 04MF0936 was issued for a new engine at the Hiawatha Deep facility on September 2, 2004. The initial approval construction permit identified a low NO_X Caterpillar engine; however, Questar invoked the alternative operating scenario and installed the Waukesha engine (which commenced operation on October 19, 2004). Therefore, the construction permit was revised on March 4, 2005 to include the appropriate applicable requirements for the Waukesha engine. According to the August 25, 2005 inspection report, Questar submitted a self-certification on May 6, 2005. The source has demonstrated compliance under the provisions of Regulation No. 3, Part B, Section III.G.2 for initial approval construction permit 04MF0936 but has not yet received a final approval construction permit. Under the provisions of Regulation No. 3, Part C, Section V.A.3, the Division will not issue a final approval construction permit and is allowing the initial approval construction permit to continue in full force and effect. The appropriate applicable requirements from the initial approval construction permit have been incorporated into the revised permit as follows:

- Visible emissions shall not exceed twenty percent (20%) opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions shall not exceed 30% opacity for more than six minutes in any sixty consecutive minutes (condition 1, Regulation No. 1, Section II.A.1. & 4).

  Note that Colorado Regulation No. 1 does not identify the 20% opacity requirement as a condition that only applies during normal operation and EPA has objected, in comments on another operating permit, to the term "normal operations" applied to the 20% opacity standard. The specific operational activities subject to the 30% opacity requirement are also conditions that can be considered "normal operation". The 30% opacity requirement also applies during other specific activities that are not identified in the construction permit. The specific activities under which the 30% opacity standard applies are: building a new fire, cleaning of fire boxes, soot blowing, startup, any process modification, or adjustment or occasional cleaning of control equipment. Based on engineering judgment the Division considers that building a new fire, cleaning of fire boxes and soot-blowing does not apply to the operation of internal combustion engines. Although this engine has a control device, it does not control PM emissions and therefore would not affect opacity emissions. Process modifications and startup may apply to engines, however, based on engineering judgment, the Division believes that such activities would be unlikely to occur for longer than six minutes. Therefore, the 30% opacity requirement has not been included in the operating permit.

- Emissions of air pollutants shall not exceed the following limitations (condition 3):

o	NO_X	8.2 tons per year	and	1,392.9 pounds per month
o	CO	8.2 tons per year	and	1,392.9 pounds per month
o	VOC	4.1 tons per year	and	696.4 pound per month

The monthly limits apply to the first twelve months of operation; therefore, since the engine has been operating for twelve months, the monthly limits will not be included in the permit.

Note that the construction permit contains a paragraph in condition 3 beginning with the following language “compliance with the synthetic minor status of this facility shall be determined by recording the facility’s annual permitted criteria pollutant emissions from each emission unit, on a rolling (12) month total.” All permitted emission units within the Title V permit are required to keep rolling twelve-month totals to monitor compliance with their individual emission limits. Therefore, this language regarding facility synthetic minor source status will not be included in the revised Title V permit.

- This engine shall be subject to the following fuel use limits (condition 4):

  Consumption of natural gas shall not exceed 5,053,424.3 SCF/mo and 59.5 mmSCF/yr

  The monthly limits apply to the first twelve months of operation; therefore, since the engine has been operation for twelve months, the monthly limits will not be included in the permit.

- A source compliance test shall be conducted to measure emission rates for NO_X and CO (condition 5).

  A performance test was conducted on May 24, 2005; therefore, the performance test requirement will not be included in the revised Title V permit.

- An operating and maintenance plan shall be submitted before final approval (condition 6).

  It is not clear whether or not an operating and maintenance plan was submitted, but the appropriate periodic monitoring requirements will be included in the revised operating permit.

- Operating Permit requirements shall apply to this source at any such time that this source becomes major solely by virtue of a relaxation in any permit limitations (condition 7).

  This condition is not entirely correct, in that the operating permit requirements apply when facility wide potential emissions exceed the major source levels, regardless of whether there is a relaxation in these permit conditions. Since the Division considers that because the Hiawatha Deep equipment is co-located with East Hiawatha, which is a Title V source, that the Hiawatha Deep and East Hiawatha facilities are a single source. As requested, Questar submitted an application to revise the East Hiawatha Title V permit to include the Hiawatha Deep equipment. Therefore, this requirement will not be included in the permit.

- Alternative operating scenario for temporary engine replacement (condition 8).

  Note that the AOS that will be included in the permit will apply to all engines at the facility. The AOS has been updated to the latest version.

- Alternative operating scenario for permanent engine replacement (condition 9).

  Note that the construction permit only allows a like-kind replacement. Since the source has not submitted any additional engine types for review as a permanent replacement, the operating permit will only allow a like-kind replacement. In addition, the AOS that will be included in the permit will apply to all engines at the facility. Only like-kind replacements will be allowed as permanent replacement engines.

- APEN reporting requirements (condition 10).

  The APEN reporting requirements will not be identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit, condition 22.e.

- Within 180 days after commencement of operation, compliance with the conditions contained on this permit shall be demonstrated to the Division (condition 11).

  As discussed previously, according to the August 25, 2005 inspection report, Questar submitted a self-certification on May 6, 2005. Therefore, this requirement will not be included in the operating permit.

Compliance Assurance Monitoring (CAM) Requirements

CAM applies to any emission unit that is subject to an emission limitation, uses a control device to achieve compliance with that emission limitation and has potential pre-control emissions greater than major source levels. The new engine is equipped with an add-on control device and uncontrolled emissions from the engine exceed the major source level, therefore, CAM applies to this engine. Since controlled emissions from the engine do not exceed the major source level, the engine is considered a small pollutant specific emission unit (PSEU) and a CAM plan is not required for this engine until the renewal permit application is due in accordance with 40 CFR Part 64 § 64.5(b).

MACT Requirements

The facility is a minor source for HAPS; therefore no MACT requirements apply to this engine.

Emission Factors – The source used manufacturer's emission factors to estimate emissions for this engine and those emission factors are in units of g/hp-hr. The annual emission limits were based on maximum horsepower and 8760 hrs/yr of operation. However, for determining annual emissions the Division converts g/hp-hr emission

factors to fuel based emission factors, due to the uncertainties in measuring the horsepower. Therefore, the g/hp-hr emission factors were converted to lb/mmBtu, based on the following equation and the values in the table below:

$$\text{Lb/mmBtu} = \frac{\text{g/hp-hr x hp x 1lb/453.6 g}}{\text{Fuel design rate (mmBtu/hr)}}$$

Pollutant	Emission Factor (g/hp-hr)	Fuel Design Rate (mmBtu/hr)	Horsepower (hp)	Converted Emission Factor (lb/mmBtu)
NO_X	1	7.43	849	0.25
CO	1			0.25
VOC	0.5			0.13

Monitoring Plan – The monitoring requirements for this engine are based on guidance developed by the Division for Internal Combustion Engines as shown on the attached Grid titled "Compliance/Scenario Summary - Gas Fired IC Engines" and are included in Section II.6 of the permit. The grid is generally based on whether the emission factors used are more conservative than AP-42 emission factors. Since AP-42 only provides emission factors for uncontrolled emissions, the manufacturer's emission factors cannot be readily compared to AP-42. However, as indicated on the grid, the monitoring is essentially the same for this particular situation, except that for units with emission factors more conservative than AP-42 the frequency of portable monitoring is semi-annually. In the past, the Division had allowed for relaxation in portable monitoring, if compliance was consistently demonstrated (i.e. quarterly could relax to semi-annual), however, as a policy the Division currently requires quarterly on all permitted engines for which portable monitoring is required. Therefore, the frequency of portable monitoring for this engine will be quarterly. In addition, as indicated by the grid, the source will be required to monitor and record fuel consumption and calculate emissions monthly. Since this unit is equipped with a non-selective catalytic reduction control device and an air/fuel ratio controller, certain parameters for these devices are required to be monitored and recorded (see attached monitoring guidance dated 10/28/04 for engine with control devices). As discussed previously, portable monitoring shall be required on a quarterly basis. Since the emission factors for these engines have been converted to units of lbs/mmBtu, semi-annual sampling and analysis of the natural gas burned shall be required to determine the heat content of the gas. Finally, the Division presumes the engine is in compliance with the opacity requirements, in the absence of credible evidence to the contrary, since natural gas is the only fuel permitted for use as fuel.

Hiawatha Deep Glycol Dehydrator

Unit Dehy 02 – PEC, Model 12 MMSCFD, triethlyene glycol dehydrator, rated at 12 mmSCF/day, with a lean glycol circulation rate of 107 gallons per hour, serial number 1177. The dehydrator is equipped with a Jatco, Model No. 460, BTEX condenser/combustor, serial number 00326.

Applicable Requirements – Colorado Construction permit 05MF0429 was issued for the glycol dehydrator at Hiawatha Deep on September 1, 2005. At this time it is not clear whether this unit has commenced construction or startup. The due date of the first semi-annual monitoring and deviation report required by this operating permit will be more than 180 days after the initial approval construction permit 05MF0429 was issued and/or the equipment commenced operation. Therefore, under the provisions of Colorado Regulation No. 3, Part C, Section V.A.2, the Division is allowing the initial approval construction permit to continue in full force and effect and will consider the Responsible Official certification submitted with that report to serve as the demonstration required pursuant to Colorado Regulation No. 3, Part B, Section III.G.2 and no final approval construction permit will be issued. The appropriate provisions of the initial approval construction permit have been directly incorporated into this operating permit as follows:

- Construction shall commence within 18 months of initial approval permit issuance (condition 1).

- Within 180 days after commencement of operation, compliance with the conditions contained on this permit shall be demonstrated to the Division (condition 2).

  No startup notice has been submitted for this emission unit; however, the Division is under the impression that this emission unit has commenced operation. Although the construction permit did not include a requirement to submit a startup notice, a notice of startup is required in accordance with Colorado Regulation No. 3, Part B, Section III.G.1. Since the source has not indicated when the unit commenced operation (the Title V permit modification application indicates that this unit commenced operation in 1975 and an APEN indicates that startup was expected July 2005), it is not clear whether 180 days have passed since the unit started up. The Division has not received a self-certification from the source as of August 2006. As discussed above, the first semi-annual monitoring report submitted after the Title V permit is issued will serve as the self certification that this unit can comply with the provisions in their permit. The Division has referred the failure to submit a startup notice and self-certification to our Field Services' Unit to determine the appropriate enforcement action. Since the Division believes this unit has commenced operation, the two conditions identified above, will not be included in the operating permit.

- Odor requirements in Reg 2 (condition 3).

  The Reg 2 odor requirements will not be identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit, condition 14.

- Visible emissions shall not exceed twenty percent (20%) opacity during normal operation of the source. During periods of startup, process modification, or adjustment of control equipment visible emissions shall not exceed 30% opacity

for more than six minutes in any sixty consecutive minutes (condition 4, Regulation No. 1, Section II.A.1. & 4).

Note that Colorado Regulation No. 1 does not identify the 20% opacity requirement as a condition that only applies during normal operation and EPA has objected, in comments on another operating permit, to the term "normal operations" applied to the 20% opacity standard. The specific operational activities subject to the 30% opacity requirement are also conditions that can be considered "normal operation". The 30% opacity requirement also applies during other specific activities that are not identified in the construction permit. The specific activities under which the 30% opacity standard applies are: building a new fire, cleaning of fire boxes, soot blowing, startup, any process modification, or adjustment or occasional cleaning of control equipment. Based on engineering judgment the Division considers that building a new fire, cleaning of fire boxes and soot-blowing does not apply to the operation of the combustor on the dehydrator. The combustor itself is a control device, but to reduce VOC emissions, not PM emissions and therefore would not affect opacity emissions significantly. In addition, the control device can not be readily adjusted or cleaned during operation. Therefore, the Division considers that adjustment or occasional cleaning of control equipment are not applicable to this unit. Process modifications and startup may apply to the combustor, however, based on engineering judgment, the Division believes that such activities would be unlikely to occur for longer than six minutes. Therefore, the 30% opacity requirement has not been included in the operating permit.

- Natural gas processed through the glycol dehydrator shall not exceed the following limitations (condition 6)

  - Natural gas processed: 4,380 mmSCF per year
  - Triethylene glycol circulated: 107 gallons per hour

- Emissions of air pollutants shall not exceed the following limitations (condition 7):

  - VOC: 0.3 tons per year

  The source submitted an APEN on September 20, 2006 requesting that VOC emissions for this unit be permitted at 0.5 tons/yr.

- This source shall be equipped with a BTEX condenser/combustor capable of reducing uncontrolled emissions of VOC by at least 98%. Operating parameters of the control equipment shall be identified prior to final approval of this permit. The identified operating parameters will replace the control efficiency requirement on the final permit (condition 8).

  In processing the construction permit for this unit, the source had indicated that the condenser/combustor reduced VOC emissions by 98%; however, no documentation from the manufacturer was provided. During processing of the

Title V permit modification, the Division asked for documentation supporting the 98% control efficiency. Again, no information was provided although, the source did submit performance test data on similar units that indicated control efficiencies greater than 98% were achievable. However, these tests relied on inlet VOC based on GLYCalc model runs and outlet VOC based on actual test data. The Division does not consider that this would be an appropriate method to test the control efficiency of a unit, we would expect that the efficiency would be based on actual test data from both the inlet and outlet streams. In addition, it is not clear how the tested units were operated (e.g. condenser temperature, wet gas temperature) so we did not believe such a comparison was appropriate. However, the Division did agree to a 95% control efficiency for the unit and the source submitted an APEN and GLYCalc run on September 20, 2006 to reflect the lower control efficiency.

- An operating and maintenance plan shall be submitted before final approval (condition 9).

  As previously stated, although no startup notice has been submitted, the Division believes this unit has commenced operation. In addition, it is not clear if a self certification or operating and maintenance plan has been submitted. However, the Division included the appropriate monitoring requirements in the permit for this unit.

- APEN reporting requirements (condition 10)

  The APEN reporting requirements will not be identified in the permit as a specific condition but are included in Section IV (General Conditions) of the permit, condition 22.e.

Emission Factors - Triethylene glycol is contacted with the natural gas stream to remove moisture. This mixture is heated in the still vent portion of the unit which drives off the water and some entrained VOCs. Emissions from this process are typically predicted using the Gas Research Institute's GLYCalc Model. Emission factors for VOCs and various HAPs are dependent upon the variables input into this Model. These variables include glycol recirculation rate, cubic feet of gas processed, desired moisture content (dew point) of processed gas, and percentage breakdown by weight of constituents in the natural gas. Combustion emissions from the heater are exhausted through a separate stack. This heater is rated at 375,000 Btu/hr and falls under the insignificant activity category of Colorado Reg. 3, Part C, Section II.E.3.k. Therefore, these combustion emissions are not addressed in Section II of the Title V permit, but is included in the insignificant activity list.

Monitoring Plan – The source will use the GRI GLYCalc Model to predict annual emissions of VOC and HAPs from the still vent of this dehydration unit to determine compliance with VOC emission limitations. Monthly recording of system parameters will be conducted to ensure accurate input to the Model. Daily recording of the glycol circulation rate, condenser outlet temperature and presence of a flame in the combustor

will also be required. A quarterly analysis of the natural gas composition will be conducted provisions for relaxed sampling frequency are provided if the BTEX composition of the inlet gas remains consistently below the levels used in the initial model.

In the absence of credible evidence to the contrary, compliance with the 95% control efficiency is presumed, provided a flame is present in the combustor when the glycol dehydrator is operating. The Division believes that the presence of a flame is the only monitoring necessary for this unit. The combustor is enclosed and the condenser knocks water out of the combustor inlet gas (note that if the condenser is operated at low enough temperatures, VOCs are also knocked out of the combustor inlet gas). Based on the GLYCalc run submitted with the application (and the subsequent revised GLYCalc submitted on September 20, 2006), the heat content of the condenser outlet exhaust (inlet to the combustor) is over 500 Btu/scf (this based on a high condenser temperature of 155 ° F, the Btu/scf content increases as the condenser temperature decreases). Although the requirements for flares in 40 CFR Part 63 Subpart A § 63.11(b) would not apply to this unit, it outlines requirements for flares operated to meet the control requirements for dehydrators in the Oil and Gas Production Facilities (40 CFR Part 63 Subpart HH) and Natural Gas Transmission and Storage Facilities (40 CFR Part 63 Subpart HHH) MACTS, which can be used to meet the MACT floor of 95% control. The fuels burned in flares subject to § 63.11(b) must have a Btu content of 300 Btu/scf or higher. Since the fuel burned by the combustor in this dehydrator has a Btu content well above 300 Btu/scf, the Division considers that other monitoring (such as monitoring supplemental fuel) is not necessary.

Other Modifications

In addition to the requested modifications made by the source, the Division used this opportunity to include changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this modification.

The Division has made the following revisions, based on recent internal permit processing decisions and EPA comments on other permits, to the East Hiawatha Operating Permit with the source's requested modifications.

Section I – General Activities and Summary

- Added language to Condition 1.1 indicating that the Hiawatha Deep equipment had been added to the facility and to reflect that all the engines are natural gas fired.

- Revised the language in Condition 1.4 to reflect that only the last paragraph of Section IV, Condition 3.g is state-only.

- Some of the citations in Condition 3.1 (PSD) were revised based on revisions made to Regulation No. 3.

- Revised the language in Condition 5.1 to clarify the CAM as it applies to the Hiawatha Deep engine.

- Added the Hiawatha Deep equipment to the table in Condition 6.1 and removed engine P102 (this was replaced by engine P104).

Section II.1 – Permit Exempt Compressor Engines

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas is used as fuel in these engines.

- Removed engine P102.

- Revised the language in Condition 1.2 to indicate that hours of operation are used to allocate fuel use.

Section II.2 – Generator Engines

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas is used as fuel in these engines.

- Revised the language in Condition 2.2 to indicate that hours of operation are used to allocate fuel use.

Section II.4 –Condensate Tanks

- Revised the language in Conditions 4.1 and 4.2 to require that emissions from condensate tanks be calculated annually using the average annual temperature in the E & P Tanks runs.

Section II.5 – Engine P104

- Based on EPA's response to a petition on another Title V operating permit, minor language changes were made to various permit conditions (both in the table and the text) to clarify that only natural gas is used as fuel in these engines.

- Revised Condition 5.3 to specify that the higher heating value for natural gas be used in emission calculations. This is consistent with the language in Questar's draft Powder Wash Compressor Station Title V renewal permit and the requirement in Questar's Rabbit Mountain Compressor Station Title V permit.

- The portable monitoring language (Condition 5.4) was moved to Condition 8, so that it does not need to be repeated several times. In addition, the portable monitoring language has been revised to latest version.

- Removed Conditions 5.5 (commence construction), 5.6 (startup notification), 5.7 (removal of P102) and 5.8 (self-certification) since these conditions have been completed. The Division is aware that the engine has commenced operation and we believe that unit P102 has been removed from the facility. However, the source did not submit a startup notice or send in a letter to request cancellation of the APEN for engine P102 as required by Conditions 5.6 and 5.7. The Division has referred these deficiencies to our Field Service's unit for the appropriate enforcement action.

- Added a condition to record hours of operation. Hours of operation are required to allocate fuel use among the engines.

Section III – Permit Shield

- Revised the justification for the NSPS KKK requirements. The NSPS KKK requirements do not apply because the facility is not a natural gas processing plant.

Section IV – General Conditions

- Removed the statement in Condition 3.g (affirmative defense provisions) addressing EPA approval and state-only applicability. The EPA has approved the affirmative defense provisions, with one exception and the exception, which is state-only enforceable is identified in Section I, Condition 1.4.

- General Condition No. 21 (prompt deviation reporting) was revised to include the definition of prompt in 40 CFR Part 71.

- Replaced the phrase "enhanced monitoring" with "compliance assurance monitoring" in General Condition No. 22.d.

Appendices

- Added the glycol reboiler from the Hiawatha deep dehydrator to the insignificant activity list in Appendix A.

- Replaced Appendices B and C with latest versions.

- Revised the tables in Appendices B and C to include the Hiawatha Deep Equipment and to remove engine P102.

HAPS per Division Analysis

	HAP Emissions (tons/yr)									
Unit	acetaldehyde	acrolein	benzene	toluene	ethyl benzene	xylene	formaldehyde	n-hexane	methanol	**total**
P101	6.86E-02	6.46E-02	1.41E-01	4.52E-02		1.02E-02	6.31E-01		7.52E-02	1.04E-00
P103	2.60E-02	2.45E-02	5.44E-02	1.75E-02		3.94E-03	2.44E-01		2.85E-02	3.99E-01
P301/302	7.58E-03	7.14E-03	1.71E-02	5.48E-03		1.24E-03	7.65E-02		8.31E-03	1.23E-01
P104	9.79E-02	7.42E-02	1.93E-02	9.97E-02		5.19E-03	8.53E-01	1.30E-02	2.93E-02	1.19E-00
Dehy			4.32E-00	6.56E-00	3.69E-01	2.75E-00		8.84E-01		1.49E+01
Condensate Tanks			4.00E-02	2.00E-02		3.00E-03		1.97E-01		2.60E-01
EN001	9.04E-02	8.52E-02	1.81E-01	5.82E-02		1.31E-02	8.12E-01		9.92E-02	1.34E-00
Dehy 02			1.00E-01	1.75E-01	1.25E-02	1.13E-01		5.00E-03		4.05E-01
Total	2.90E-01	2.56E-01	4.87E-00	6.98E-00	3.81E-01	2.89E-00	2.62E-00	1.10E-00	2.41E-01	1.96E+01

Engine emissions are based on most conservative emission factor (from AP-42 and HAPCalc 2.0) for each pollutant. Note that EN001 is equipped with NSCR but emissions in above table do not take credit for NSCR.

Dehy emissions based on APEN submitted on April 24, 2002, source indicates reported emissions are PTE

Dehy 01 emissions based on emissions reported on APEN submitted 9/20/06 (these are slightly higher than GLYCalc run used to set VOC limits in permit) and includes 95% control for condenser/combustor

Condensate Tank emissions based on APEN submitted on April 29, 2003